

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL INCLUDING APS, CPS AND BATTERY BACKUP AT THE INTERSECTION OF MD 193 AND MISSION DRIVE/EASTGATE S.C. IN PRINCE GEORGE'S COUNTY, MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE. THERE IS EXCLUSIVE LEFT TURN PHASING FOR BOTH APPROACHES OF MD193. THE MD 193 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THE MISSION DRIVE/EASTGATE S.C. APPROACHES WILL OPERATE AS A "SIDE STREET SPLIT" WITH AN ALTERNATE PEDESTRIAN PHASE FOR THE EASTGATE S.C. MOVEMENT.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MS. FELECIA MURPHY
ADE TRAFFIC, D3
(301) 513-7409

MR. EDWARD RODENHIZER
CHIEF OF SIGNAL OPERATIONS
(410) 787-7650

MR. RICHARD DAFF
DIVISION CHIEF, TOD
(410) 787-7630

MR. VICTOR GRAFTON
UTILITY ENGINEER
(301) 513-7350

MR. VERNON STINNET
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 513-7304

MR. KEVIN NOWAK
MR. DUANE BERNARD
ADE CONSTRUCTION, D3
(301) 513-7336

POWER COMPANY REPRESENTATIVE:

MR. BENNY WARD
BALTIMORE GAS & ELECTRIC COMPANY
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076

APS NOTES:

- PUSH BUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSH BUTTON IS TO BE MEASURED FROM FACE OF PUSH BUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSH BUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSH BUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- APS WILL FUNCTION AS FOLLOWS:

TO CROSS MD 193 AT MISSION DRIVE

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:
"WAIT TO CROSS GREENBELT AT MISSION. WAIT."
B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

PHASE CHART

1	2	3	4	5	6	7	8	9	10	11	12	13	14

PHASE 1 + 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 + 5 CHANGE	to 1 + 6, 2 + 5, or 2 + 6													
PHASE 1 + 6														
1 CHANGE														
PHASE 2 + 5														
5 CHANGE														
PHASE 2 + 6														
2 + 6 CHANGE														
PHASE 3														
3 CHANGE														
PHASE 4														
4 CHANGE														
PHASE 4 ALT														
PED. CLEAR														
4 ALT CHANGE														
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK

EQUIPMENT LISTS

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

LUMP SUM	MAINTENANCE OF TRAFFIC
LUMP SUM	MOBILIZATION
2 CY	TEST PIT EXCAVATION
LUMP SUM	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
3 EA	APS PUSHBUTTON AND ASSEMBLY
1 EA	APS CENTRAL CONTROL UNIT
2 EA	16 INCH ONE WAY LED COUNTDOWN PEDESTRIAN SIGNAL
1100 LF	PULL BACK AND REROUTE EXISTING CABLE
1 EA	INSTALL HANDHOLE ON EXISTING CONDUIT
900 LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO 18 AWG) FOR VIDEO DETECTION CAMERA
6 CY	CONCRETE FOR SIGNAL FOUNDATION
91 SF	SHEET ALUMINUM SIGNS
3 EA	R10-3(1) (9"x16") PEDESTAL POLE MOUNT
3 EA	R3-5(L) (30"x36") MAST ARM MOUNT
1 EA	R3-6(L) (30"x36") MAST ARM MOUNT
2 EA	M1-5(4) (78"x36") MAST ARM MOUNT
2 EA	D3-2 (VAR16") MAST ARM MOUNT
400 LF	NO 6 AWG STRANDED BARE COPPER GROUND WIRE
100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
175 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (BORED)
60 LF	2 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
400 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
50 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
1 EA	METERED SERVICE PEDESTAL
4 EA	NON-INVASIVE MICRO LOOP DETECTORS (3 PER SET) WITH 1000 FT LEAD-IN CABLE
9 EA	ELECTRICAL HANDHOLE
4 EA	VIDEO DETECTION CAMERA, TERRA TYPE
1 EA	VIDEO INTERFACE EQUIPMENT / RACK
1 EA	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
1 EA	250 WATT HIGH PRESSURE SODIUM LAMP, LUMINAIRE AND PHOTOCCELL
8 EA	GROUND ROD 3/4 INCH DIAMETER X 10 FOOT LENGTH
38 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
350 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
500 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
950 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
200 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
150 LF	ELECTRICAL CABLE - 3 WIRE (NO. 8 AWG)
1 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
1 EA	NEMA SIZE 5 BATTERY BACKUP CABINET WITH UPS EQUIPMENT
1 LS	POLICE FOR TRAFFIC CONTROL
1 LS	CONCRETE TESTING

MAINTENANCE OF TRAFFIC

THE FOLLOWING WORK ZONE TRAFFIC CONTROL STANDARDS SHALL BE USED FOR THE PROJECT:

STANDARD NO. MD-104.04-04
(LEFT LANE CLOSURE)

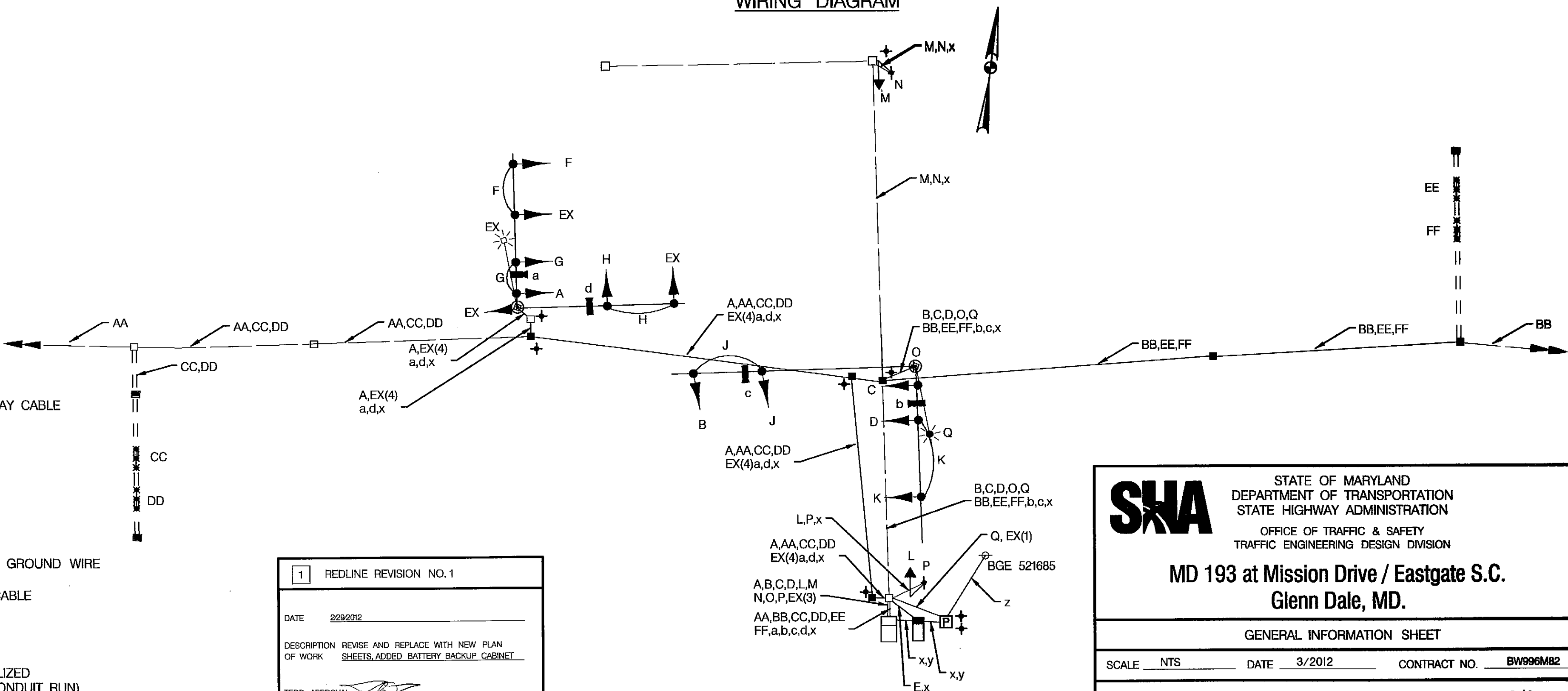
STANDARD NO. MD-104.04-13
(LEFT TURN BAY CLOSURE)

STANDARD NO. MD-104.04-05
(RIGHT LANE CLOSURE)

WIRING KEY

A,B,C } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
D,E } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
F,G,H,I,J,K } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
L,M } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
N,O,P } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Q } 2 CONDUCTOR ELECTRICAL CABLE TRAY CABLE (NO. 12 AWG)
a,b,c,d } VIDEO CAMERA CABLE
AA,BB } EXISTING INTERCONNECT CABLE
CC,DD,EE,FF } NON-INVASIVE MICRO LOOP PROBES
x } NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
y } 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG THHN/THWN)
z } UNDERGROUND BY OTHERS
EX } EXISTING SIGNAL CABLES TO BE UTILIZED (EXISTING NUMBER OF CABLES IN CONDUIT RUN)
+ } GROUND ROD

WIRING DIAGRAM



1	REDLINE REVISION NO. 1
DATE	2/29/2012
DESCRIPTION	REVISE AND REPLACE WITH NEW PLAN OF WORK SHEETS, ADDED BATTERY BACKUP CABINET
TEDD APPROVAL	
TEDD APPROVAL	

These plans are approved for construction for a period of one (1) year from date of approvals. Should construction not begin within this time limit these documents shall become null and void without a review from the SHA's Traffic Engineering Design Division.



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 193 at Mission Drive / Eastgate S.C.
Glenn Dale, MD.

GENERAL INFORMATION SHEET

SCALE	NTS	DATE	3/2012	CONTRACT NO.	BW996M82
DESIGNED BY	JAB	COUNTY	PRINCE GEORGE'S		
DRAWN BY	JAB		16019310.05		
CHECKED BY	JAB	T.I.M.S. NO.	H105		
F.A.P. NO.		TOD NO.			
T.S. NO.	3327B	SHEET NO.	3	OF	9